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Cacti and Succulents

Houseplant enthusiasts are looking continually for different and more exotic specimens for their collections. Fortunately, beginners and experts can find many good choices among the cacti and succulents.

The term succulent refers to a broad, loose category of plants, including cacti, which have developed thick fleshy leaves or stems. These serve as water storage organs to insure survival under arid conditions. Succulents are found worldwide. Besides cacti, they include many familiar plants: the jade plant (*Crassula arborescens*), the snake plant (*Sansevieria trifasciata*), the medicine plant (*Aloe vera*), the century plant (*Agave americana*), the flowering Kalanchoes (*Kalanchoe Blossfeldiana*) sold as gift plants as well as the sedums (*Sedum* sp.), and hens and chicks (*Echeveria* sp.) so common in the perennial garden.

The cactus family has nearly 2,000 species, and with one exception all are native to the Americas. They range from the Arctic Circle to the mountains of Chile, but are most abundant in the southwestern United States and Mexico. Cacti can be tall and lanky or squat and spherical, frequently without any branches and almost always without leaves. They often have scales or spines ranging from microscopically small to wickedly large and often barbed. These protect against predators and are thought to aid the plant in withstanding hot drying rays of the sun.

Many cacti and succulents are extremely well adapted to living in houses where the relative humidity is low (10-30 percent). They require only modest amounts of water and fertilizer, but do need abundant light. They should be placed in a bright, sunny window. If natural light is not available it can be augmented by artificial lighting.

In nature, most cacti and succulents are found growing in open, well-drained sandy soil. These conditions should be duplicated indoors. A mix of one part soil and one part coarse sand is usually porous enough. A good test is to moisten the mixture and squeeze it in your hand. On release, the soil should fall apart. Both pot and growing medium should be sterile. Ideally, these plants should be grown in pots with drainage holes because excess water trapped in the soil will result in rotting and decay in a very short time.

During the low-light winter months, cacti and succulents should be watered only enough to prevent shrinking and withering. When watering, do it thoroughly. A series of repeated, shallow sprinklings often results in distorted growth. As the light increases so does the need for water. The soil, however, should always dry out completely between waterings.

Cacti and succulents have relatively low nutrient requirements. They need fertilizer only once or twice a year during the late spring or summer. Use a houseplant food that is higher in phosphorus than nitrogen, diluted to half the recommended rate. Other succulents may be fertilized three or four times during the brighter months in the same manner.

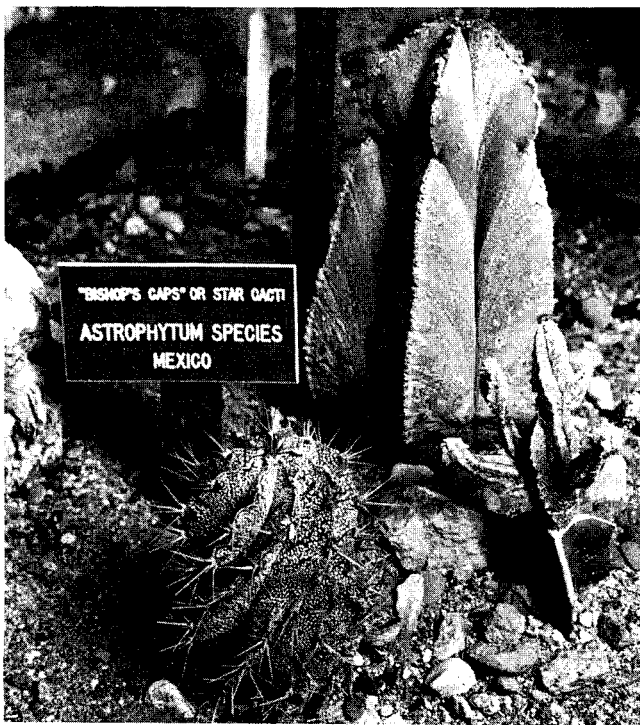


Agave victoriae-reginae, a century plant, has leaves that are only 6 inches long, but a flower stalk that can reach a height of 15 feet.

You may be able to bring your cacti and succulents into bloom indoors if you can approximate their native winter conditions. This involves a combination of good light, dry soil, and cool nights. Often a windowsill location will give the necessary light and cool night temperatures. Some cacti that are relatively easy to flower indoors are species of *Mammillaria*, *Gymnocylcium*, *Lobivia*, and *Rebutia*. (Don't be fooled by the presence of tiny, brightly colored straw flowers commonly stuck into the tissue of small cacti sold commercially.)

Many cacti and succulents benefit from spending the summer months outdoors. Once the weather warms up they should be placed in a semi-shaded, protected area of the yard and then gradually moved to a sunnier location. Avoid locations where they will receive the hot, intense sunlight from 11 a.m.-3 p.m. Once outdoors, these plants will require more water and so should be checked regularly.

Often cacti and succulents are grouped together in shallow dish gardens. While this may be an extremely attractive method of display, several precautions should be taken. Choose plants that are compatible in rate of growth so that one or two plants don't outgrow the rest. Even more important, the plants must have similar water requirements. Generally speaking, most cacti need less water than do other succulents. Since these shallow dishes seldom have drain holes, it is essential that they aren't overwatered. Broken clay pot shards or coarse



Species of *Astrophytum* are among the easiest cacti to grow. They usually are small and their yellow flowers are produced at the apex of the plant.

gravel at the bottom of the container may provide a bit of drainage.

Cacti and succulents are not troubled much by pests. If they have mealybugs or scale, the problem can be controlled by wiping them off with alcohol-dipped cotton swabs. Fungal or bacterial rots can almost always be prevented by maintaining adequate cultural conditions—good light and minimal water.

Cacti and succulents can be propagated easily by stem cuttings. Many succulents will form new plants from leaves which have been broken off. Allow the cutting wound to



Sedum morganianum (burrow's tail) is well suited to hanging pots because of its pendant stems. Growing in an undisturbed area is recommended because the leaves break off easily.

air dry before sticking the cutting into slightly moistened, sterile sand. Water sparingly since moisture retention is not a problem. When the roots have formed, transplant into regular sand and potting soil mixture.

Since cacti and succulents are diverse, consult a textbook regarding the specific requirements of individual species. Libraries or bookstores have many well-illustrated books to aid in plant identification.

Growing cacti and succulents can become a fascinating hobby, one with maximum return for minimum effort.